

REMARKS

Favorable consideration of this application is respectfully requested.

Claims 2-5, 9, 10-18, 44-59, and 65-86 are currently active in this case. Claims 1, 6-8, and 43 have been canceled; Claims 2-5, 9, 10, 11, 14, 16, 17, 44, 46, 47, 49, 53, and 55-57 have been amended; and Claims 65-86 have been added by way of the present amendment. Each new and amended claim is supported by the specification and claims as originally submitted and no new matter has been added.

In the outstanding Official Action, Claims 1, 5-12, 17-18, 43, 47-52, and 55-56 were rejected as being unpatentable under 35 U.S.C. §102(b) over *Hardman* (U.S. Patent No. 6,122,490); Claims 1, 3-4, 13-15, 43-46, and 53-54 were rejected as being unpatentable under 35 U.S.C. §102(b) over *Gomez et al.* (U.S. Patent No. 5,134,418, hereinafter *Gomez*); Claim 2 was rejected as being unpatentable under 35 U.S.C. §103(a), over *Gomez*, in view of *Yamashita* (U.S. Patent No. 5,268,765); Claim 16 was rejected as being unpatentable under 35 U.S.C. §103(a), over *Gomez*; and Claims 57-59 were rejected as being unpatentable under 35 U.S.C. §103(a), over *Hardman*.

Please cancel Claims 1, 6-8, and 43 without prejudice.

Applicants respectfully traverse the rejection of Claim 5 under 35 USC 102 has being anticipated by *Hardman*. As amended, Claim 5 recites:

***An antenna integrity check device, comprising:
a measurement device configured to determine at least one
value of an antenna;
at least one electronic device connectable to the antenna; and***

a controller configured to prevent operation of the electronic device based on the determined antenna value;
wherein:
said measurement device comprises,
a resonant frequency detector configured to determine a resonant frequency of the antenna.

However, *Hardman* fails to teach or suggest similar subject matter.

Applicants respectfully traverse any assertion that would equate *Hardman's* interrogation device (e.g., col. 3, line 39) to a measurement device that determines a resonant frequency of the antenna. Applicants respectfully note that *Hardman's* interrogation device is described by *Hardman* as a controller to controller communication (e.g., col. 3, lines 32-37 "...the controller of an interrogating device ...transmitting an interrogation signal to the controller of the responding device," and "...the responding device transmits a response back to the interrogating device."). However, Claim 5 specifically recites "a resonant frequency detector," and *Hardman* fails to teach or suggest resonant frequency detection.

Applicants admit that *Hardman's* response signal is described as being used to determine whether the antenna transmits and/or receives RF signals having the power and/or frequency band required by the transceiver (e.g., col. 5, lines 26-29). However, although a resonant frequency may be included in a frequency band, Applicants respectfully note that determining whether an antenna transmits and/or receives any particular RF signals or frequency band is not the same as detecting a resonant frequency of the antenna.

Most important is the fact that *Hardman's* determination is only described as a communication between controllers. And, *Hardman's* discussion only refers to codes or signals indicative of a characteristic (e.g., *Hardman's* "predetermined

characteristic," col.5, lines 37-38). which are described as "an identification code" (e.g., col. 5, line 38), a signal at a certain frequency band, or an encrypted code.

However, regardless of how the characteristic is encoded or passed between controllers, *Hardman* still only describes passing the information between controllers. In contrast, Claim 5 recites "a resonant frequency detector configured to determine a resonant frequency of the antenna." Therefore, Applicants respectfully submit that Claim 5 cannot be anticipated by *Hardman* because *Hardman* fails to teach or suggest subject matter specifically claimed in Claim 5. Accordingly, Applicants respectfully submit that Claim 5 is patentable over the cited art references.

Applicants respectfully traverse the rejection of Claim 9 as being anticipated by *Hardman*. Claim 9 recites:

An antenna integrity check device, comprising:
a measurement device configured to determine at least one
value of an antenna;
at least one electronic device connectable to the antenna; and
a controller configured to prevent operation of the electronic
device based on the determined antenna value;
wherein
said controller indexes a lookup table of antenna properties
with the determined antenna value.

However, *Hardman* fails to teach or suggest similar subject matter.

Applicants respectfully traverse the assertion that *Hardman* teaches a lookup table stored in ROM 310. At col 9, lines 38-44, *Hardman* describes verifying that an interrogation signal is the identity of the connected antenna stored in ROM 310. However, storage of the identity of a connected antenna does not teach or suggest a look-up table. Therefore, Applicants respectfully submit that Claim 9 cannot be anticipated by *Hardman* because *Hardman* fails to teach or suggest similar subject matter. Accordingly, Applicants respectfully submit that Claim 9 is patentable.

Applicants also respectfully traverse the rejection of Claims 14 and 15 under 35 USC 102 as being anticipated by *Gomez*. As amended, Claim 14 recites:

An antenna integrity device, comprising:
a measurement device configured to determine at least one
value of an antenna;
at least one electronic device connectable to the antenna; and
a controller configured to prevent operation of the electronic
device based on the determined antenna value;
wherein said measurement device is configured to read the
antenna value from a set of pins connected to the antenna.

However, *Gomez* fails to teach or suggest similar subject matter.

Applicants respectfully traverse any assertion that would equate any discussion of *Gomez* to Claim 14. In particular, Applicants respectfully traverse the assertion that *Gomez* discloses a measurement device that is configured to read (using RAM 218) the antenna value from a set of pins connected to the antenna.

Applicants respectfully note that *Gomez* describes a loop antenna 202 (col. 5, line 13, Figs. 2 & 3) that can either be open at a wristband clasp

(disconnected), or closed (connected – when the clasp is closed) (col. 5, lines 46-48). *Gomez's* Fig. 3 clearly indicates that the antenna has only a single connection to a communication receiver 212 and microcomputer 216. However, Claim 14 specifically recites a measurement device configured to read the antenna value *from a set of pins.*"

Furthermore, *Gomez's* described connection only provides a single voltage value indicative of connectivity of the antenna loop. However, connectivity here only refers to connectivity of the antenna and is not an antenna value. In contrast, Claim 14 recites that the measurement device is "*configured to read the antenna value* from a set of pins."

Therefore, *Gomez* fails to teach or suggest either a set of pins or reading an antenna value. Therefore, Applicants respectfully submit that Claim 14 cannot be anticipated by *Gomez* because *Gomez* fails to teach or suggest subject matter specifically claimed in Claim 14. Accordingly, Applicants respectfully submit that Claim 14 is patentable over the cited art references.

Turning now to Claim 15, Claim 15 recites:

The antenna integrity device according to Claim 14, wherein said pins are shorted or open at the antenna, the antenna value comprising a binary pattern based on a pin being open or shorted.

However, *Gomez* fails to teach or suggest similar subject matter.

Applicants respectfully traverse the assertion that *Gomez* discloses pins that are shorted or open at the antenna to provide a binary pattern. In fact, at col. 5, lines 47-57, *Gomez* only describes whether or not the antenna loop is open or closed. Therefore, no values for the antenna are provided. Furthermore, *Gomez's* discussion at most provides a single binary value that does not constitute a binary

pattern. In contrast, Claim 15 is based upon a set of pins being read, and the set of pins provide a binary pattern that indicate an antenna value.

In addition, Claim 15's binary pattern is based on the set of pins being open or shorted to produce that pattern. However, *Gomez's* antenna loop is not opened or shorted to indicate an antenna value. Therefore, Applicants respectfully submit that *Gomez* fails to teach or suggest subject matter specifically recited in Claim 15, and therefore, Claim 15 cannot be anticipated by *Gomez*. Accordingly, Applicants respectfully submit that Claim 15 is patentable over the cited art references.

Applicants also respectfully traverse the rejection of Claim 53 under 35 USC 102 as being anticipated by *Gomez*. As amended, Claim 53 recites:

A method of checking integrity of an antenna, comprising the steps of:

determining at least one property of the antenna;

enabling an electronic device connected to the antenna if the antenna property is within a valid range;

wherein said step of determining at least one property of the antenna comprises reading an encoded pattern on a set of pins attached to said antenna.

However, *Gomez* fails to teach or suggest similar subject matter.

As noted above, Applicants respectfully note that *Gomez* describes a loop antenna 202 (col. 5, line 13, Figs. 2 & 3) that can either be open at a wristband clasp (disconnected), or closed (connected – when the clasp is closed) (col. 5, lines 46-48). *Gomez's* Fig. 3 clearly indicates that the antenna has only a single connection to a communication receiver 212 and microcomputer 216. However, Claim 53 specifically recites "reading an encoded pattern on a set of pins attached

to said antenna.” And, Gomez does not teach or suggest an encoded pattern on a set of pins.

Furthermore, *Gomez’s* described connection only provides a single voltage value indicative of connectivity of the antenna loop. However, *Gomez’s* connectivity only refers to connectivity of the antenna and is not a property of the antenna. In contrast, Claim 53 specifically recites determining at least one property of the antenna.”

Therefore, *Gomez* fails to teach or suggest suggest subject matter specifically claimed in Claim 53. Accordingly, Applicants respectfully submit that Claim 53 is patentable over the cited art references.

New Claims 75 recites

***An antenna integrity device, comprising:
a measurement device configured to measure a resistance
between terminals of an antenna; and
a controller configured to determine at least one characteristic
of the antenna based on the resistance.***

However, neither *Hardman* nor *Gomez* teach or suggest determining an antenna characteristic based on a resistance.

New Claim 76 recites

***An antenna integrity device, comprising:
a measurement device configured to measure a resistivity between
at least two terminals of an antenna; and
a controller configured to determine at least one characteristic***

of the antenna based on the measured resistivity;

wherein the characteristic comprises at least one of antenna type, antenna application, range, beam characteristics, resonant frequency, frequency range, and gain.

However, neither *Hardman* nor *Gomez* teach or suggest determining at least one antenna characteristic based on a measured resistivity wherein the characteristic comprises at least one of antenna type, antenna application, range, beam characteristics, resonant frequency, frequency range, and gain. Accordingly, Applicants respectfully submit that new independent Claims 75 and 76 are also patentable.

Based on the patentability of independent Claims 5, 9, 14, 53, 75, and 76 Applicants also respectfully submit that dependent Claims 2-4, 10-13, 15-17, 44-52, 54-59 and 65-86 are also patentable over the cited art references.

Consequently, no further issues are believed to be outstanding, and it is respectfully submitted that this case is in condition for allowance. An early and favorable action is respectfully requested.

Respectfully submitted,

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